

## REMARKS

As examined, the application included claims 8-22. These claims stand rejected under 35 USC §112, second paragraph and under 35 USC §103(a). Applicant has amended claims 8 and 10 and added new claims 23-31. In the light of the arguments as set forth below all of the claims are now in condition for allowance. Applicant requested above correction of the USPTO records to reflect the title of the invention to correspond to the title Applicant used in the 35 U.S.C. 371 transmittal letter and the accompanying documents.

### Response to Rejection under 35 USC 112, second paragraph

Regarding claim 8, the Examiner raised objections to various terminology used therein. Applicant has amended claim 8 to overcome the rejection. The Examiner has stated that it is unclear "what a layer of electroconductive material" represents and questions whether this is shown in any of the drawings. The layer of electroconductive material is illustrated in Fig. 2c and in Fig. 7b. Additionally, the specification at page 8, lines 10-12 states that layer 8b is formed over the "entire circumferential surface of each closely wound portion". Claim 10 has been amended to recite "an outer diameter of the coil spring portion" thus eliminating any indefiniteness.

The Examiner has also opined that in claims 14-22 it appears that the surface processing steps have been claimed and that these limitations are not given any patentable [sic] in a product. Applicant respectfully traverses this rejection. The patentability of these claims flow at least from the patentable subject matter included in the claims from which they depend. Also, the Examiner has not cited any authority for this kind of rejection and Applicant respectfully requests that the basis for the rejection be cited.

In light of the amendments and the explanation set forth above, Applicant respectfully requests that the rejection under 35 USC §112, second paragraph be withdrawn.

Response to Rejection Under 35 USC §103(a)

Claims 8-22 stand rejected under 35 USC §103(a) as being unpatentable over Toshio, the Japanese publication no. 10-019926 cited by Applicant in the PTO-1449. The Examiner recognizes that the cited reference does not disclose every feature of the invention and accordingly the rejection is based on Section 103. The Examiner goes on to conclude however that "It would have been obvious for one of ordinary skill in the art to form a layer of electroconductive material over an outer circumferential surface of the spring portions and the electrode pin portion so that both of the spring portions and the electrode pin portions are electrically connected with each other in order to perform tests". Applicant points out that Toshio does not disclose or suggest that the "closely wound portion of the contact unit being surface processed so as to include a first layer of electroconductive material that covers an outer surface defined by a plurality of turns of the closely wound portion of the coil spring in a continuous manner". Applicant respectfully submits that the Examiner has not presented a prima facie case of obviousness as required under MPEP Section 2142. More particularly, the Examiner has failed to establish a suggestion or motivation either in the reference or in the knowledge generally available to one of ordinary skill in the art to modify the Toshio teachings to include a "layer of electroconductive material that covers an outer surface defined by a plurality of turns of the closely wound portion of the coil spring in a continuous manner".

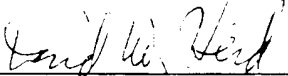
In view of the foregoing, Applicant respectfully requests that the rejection under 35 USC §103(a) be withdrawn.

### New Claims

Applicant has added new claims 23-31 to round out the coverage of the invention. Claims 23-25 are patentable for at least their dependency on claim 8. Claims 26-31 also include the feature which distinguishes them from the prior art, more particularly "surface processing a portion of the closely wound portion to form a layer of electroconductive material that covers an outer surface defined by a plurality of turns of the closely wound portion of the coil spring". As pointed out above with regard to the apparatus claims, this is not disclosed or suggested by the prior art.

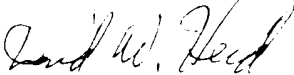
In light of the foregoing, Applicant respectfully requests allowance of claims 8-31. Should the Examiner have any questions regarding the case, it is requested that he contacts the undersigned at (408) 392-9250.

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Commissioner for Patents, Washington, D.C. 20231, on July 26, 2002.

  
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Attorney for Applicant

7/26/02  
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Date of Signature

Respectfully submitted,

  
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**APPENDIX A**  
**Version with markings to show changes made**

8. (Amended) An electroconductive contact unit assembly comprising an electroconductive contact unit in the form of a coil spring for resiliently contacting an object to be contacted, the contact unit being coaxially received in a through hole formed in an insulating support member, characterized by that:

the through hole having a first diameter in an intermediate portion positioned between first and second axial ends and [is shaped so as to have] a reduced diameter portion adjacent at least [at] one of the axial [end thereof] ends;

the contact unit in the form of a coil spring comprising a coil spring portion [received] having a coarsely wound portion positioned in [an] the intermediate [part] portion of the through hole and at least one electrode pin portion [which is] comprising a closely wound portion at one end of the coil spring portion [and], the closely wound portion having a tapered or stepped [in] shape so as to be prevented from coming off by the reduced diameter portion;

only the closely wound portion of the contact unit being surface processed so as to [form] include a first layer of electroconductive material that covers an outer surface defined by a plurality of turns of the closely wound portion of the coil spring [over an outer circumferential surface thereof] in a continuous manner.

10. (Amended) An electroconductive contact unit assembly according to Claim 8, wherein the reduced diameter portion has a smaller inner diameter than [the] an outer diameter of the coil spring portion, and is provided at each axial end of the through hole.

Please add new claims 23-31 as set forth below:

23. (New) An electroconductive contact unit assembly according to claim 8, wherein the layer of electroconductive material comprises a plated layer.

24. (New) An electroconductive contact unit assembly according to claim 8, wherein the electroconductive material comprises a member selected from a group consisting of gold, nickel and copper.

25. (New) An electroconductive contact unit assembly according to claim 8, wherein each turn of a wire member that forms the coil spring includes a second layer of electroconductive material, and further wherein the second layer of electroconductive material is beneath the first layer of electroconductive material.

26. (New) A method for making an electroconductive contact unit in the form of a coil spring for resiliently contacting an object to be contacted in an electroconductive contact unit assembly, comprising the steps of:

preparing a coil spring including a coil spring portion comprising a coarsely wound portion and at least one electrode pin portion comprising a closely wound portion formed at one end of the coil spring portion and tapered or stepped in shape;

surface processing a portion of the closely wound portion to form a layer of electroconductive material that covers an outer surface defined by a plurality of turns of the closely wound portion of the coil spring.

27. (New) A method for making an electroconductive contact unit according to claim 26, further comprising the step of surface processing a coil wire for the coil spring to form an underlying layer of electroconductive layer on the coil wire before winding the coil wire into the coil spring.

28. (New) A method for making an electroconductive contact unit according to claim 26, wherein the layer of electroconductive material comprises a plated layer.

29. (New) A method for making an electroconductive contact unit according to claim 27, wherein the underlying layer of electroconductive material comprises a plated layer.

30. (New) An electroconductive contact unit according to claim 26, wherein the electroconductive material comprises a member selected from a group consisting of gold, nickel and copper.

31. (New) An electroconductive contact unit according to claim 27, wherein the electroconductive material of the underlying layer comprises a member selected from a group consisting of gold, nickel and copper.